

Geeky Retards

A group of retarded people from a hospital were taken on a trip to re-habilitate them. They were taken to a hill-station and there some retards entered a tea-shop to have a tea. There they found some pebbles and wished they could play with it. After drinking tea, someone have to pay bill right? Either one among the retards can pay or the head who organised the trip will pay. Someone paid and everyone left the shop, but took all the pebbles with them.

After reaching hospital,back ,They decided to find who paid for them in the tea shop, during their trip. They are keen in finding whether one among them paid or the head paid. Though one among the retards have paid,he's not ready to give up his identity. So, if a retard has paid, he likes to keep his anonymity.

Finally,They decided to play a foolish game. All the retards stood in a circle, so that one person can be in two pairs.(if A,B,C are in circle, AB,BC,AC are the pairs). So, if there are 'n' retards, then 'n' such pairs can be formed. All the pairs will discuss among themselves and either take a pebble and keep it secretly among them or dont keep a pebble with them. Only the pair knows whether they have a pebble or not. After discussion, everyone went back to their places and each person announced ,they don't have a pebble if both the pair in which he is in either had a pebble or didnt have. Otherwise the person announced that he has a pebble.

If there was an anonymous person who paid in that group of retards, then he'll announce the vice-versa of what he's suppose to announce. After everyone finished announcing, a geeky retard immediately said whether it is a retard who paid it or the head who paid. His answer was perfect! Do you think,he's lucky or geeky enough??

Input

Input will be number of testcases 'n' followed by 'n' testcases.

Each testcase will have number of retards 'm' followed by 'm' answers of the retards where 1 means he has the pebble and 0 means he dont have.

$$1 < n < 30$$

$$1 < m < 100000$$

Output

Output a single line for each testcase. If it was a retard who paid, print "Retard" or else print "Head"

Example

Input:

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2
3
0 0 0
5
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1 0 1 0 1

Output:

Head

Retard